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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/873,714      | 06/04/2001  | Morenike Awokola     | FA1002 US NA        | 4978             |

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EXAMINER

TSOY, ELENA

ART UNIT PAPER NUMBER

1762

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/873,714 | <b>Applicant(s)</b><br>AWOKOLA ET AL. |  |
|                              | <b>Examiner</b><br>Elena Tsoy        | <b>Art Unit</b><br>1762               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,8-10 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-10 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 21, 2004 has been entered.

***Response to Amendment***

2. Amendment filed on June 21, 2004 has been entered. Claims 7, 11-12 have been cancelled. Claims 1-6, 8-10, 13 are pending in the application.

***Claim Objections***

3. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 fails to further limit component C) of claim 1 since "olefinic double bond" of claim 9 has the same meaning as "double bond" of claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claims 1-6, 9, 10, 13** rejected under 35 U.S.C. 103(a) as being unpatentable over DE-A-197 57 082 or WO 99/26733 in view of Richard (US 5,091,211).

The Examiner Note: since DE-A-197 57 082 and WO 99/26733 (in German language) and US 6,531,188 are of the same patent family, the Examiner will refer to English text of US 6,531,188.

Applicants admitted in Description of Related Art of the specification as filed that DE-A-197 57 082 discloses a multilayer coating process, in which the filler coating composition used comprises either solely binders curable by free-radical and/or cationic polymerization, or binders curable by free-radical and/or cationic polymerization and *further chemically crosslinking binders*. Curing proceeds by means of high energy radiation. See specification, page 1, lines 26-30.

DE-A-197 57 082/WO 99/26733 discloses all steps recited in claim 1 such as: a) applying to *optionally* pre-coated metal or plastic surface (See column 2, lines 11-15) a surfacer (filler) coating composition for automotive repair lacquering (See column 5, lines 29, 37) comprising 100 % solvent free composition comprising (See column 2, lines 47-49) a prepolymer having molecular mass of **200-10,000** and containing on average **2 to 20** olefinic double bonds per molecule (claimed component A) such as polyurethane methacrylates (See column 3, lines 1-12) and 1 to 50 wt. % of a reactive monosaturated diluent (claimed component B), e.g. esters of methacrylic acid (i.e. a *liquid* filler coating composition) (See column 3, lines 13-20) such as cycloaliphatic (meth)acrylates (reactive polymerizable liquid monomer, i.e. diluent) (See column 3, lines 8-9), and a chemically crosslinking binder (See column 4, lines 29-40), b) curing the applied surfacer coating composition by irradiation with high energy radiation (See column 2,

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lines 40-49); c) applying a top coat layer comprising a color-imparting and/or special-effect-imparting base lacquer layer and a transparent clear lacquer layer, or a top coating comprising a pigmented one-layer top lacquer (See column 2, lines 17-18) to the cured spacer (filler) layer and curing the top coat layer (See column 7, lines 62-65).

The Examiner's Note: cycloaliphatic (meth)acrylate is an ester of cycloaliphatic alcohol and methacrylic acid. In other words, cycloaliphatic (meth)acrylate is a reaction product of cycloaliphatic alcohol and methacrylic acid.

DE-A-197 57 082/WO 99/26733 fails to teach that the surfacer (filler) coating composition comprises at least one compound having at least one phosphoric acid group and at least one free-radically polymerizable double bond (Claims 1, 9) such as methacryloyl-modified phosphoric acid derivative (Claim 10) in an amount of 1-15 wt. % (Claim 5).

As to claims 1, 9, 10, Richard teaches that addition of a compound having phosphoric acid group and a double bond such as methacryloyl-modified phosphoric acid derivative (See column 2, lines 10-15, 37) to a radiation curable coating composition comprising acrylourethane (polyurethane acrylate) and reactive free-radical polymerizable monomers (See column 1, lines 45-50) provides strong adhesive bond of the coating to a metal substrate (See column 1, lines 57-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a compound having phosphoric acid group and a double bond such as methacryloyl-modified phosphoric acid derivative to a radiation curable surfacer coating composition of DE-A-197 57 082/WO 99/26733 with the expectation of providing the surfacer

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coating composition with the desired strong adhesive bond of the coating to a metal substrate, as taught by Richard.

As to claim 5, it is held that concentration limitations are obvious absent a showing of criticality. *Akzo v. E.I. du Pont de Nemours* 1 USPQ 2d 1704 (Fed. Cir. 1987).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have discovered the optimum or workable ranges of concentration limitations of a compound having at least one phosphoric acid group (including those of claim 5) in DE-A-197 57 082/WO 99/26733 in view of Richard by routine experimentation in the absence of a showing of criticality.

6. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over DE-A-197 57 082 or WO 99/26733 in view of Richard (US 5,091,211), further in view of Brehm et al (US 5,596,043).

DE-A-197 57 082/WO 99/26733 in view of Richard, as applied above, fails to teach that cycloaliphatic alcohols (Claim 7) include isobornyl methacrylate (Claim 8).

Brehm et al teach that monofunctional reactive thinners, such as isobornyl methacrylate (See column 5, line 59) may be used in combination with acrylic prepolymers (See column 4, lines 5-13) in a radiation curable coating composition (See column 7, lines 14-25) for coating automobile parts (See column 6, lines 33-35, 42) to provide good flow properties of the coating composition and thereby good processibility (See column 5, lines 50-53).

It is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical*

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Corp., 325 U.S. 327, 65 USPQ 297 (1945). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used methacrylates of cycloaliphatic alcohols such as isobornyl methacrylate as methacrylatereactive thinner in DE-A-197 57 082/WO 99/26733 in view of Richard for the use in automotive coatings since Brehm et al teach that monofunctional reactive thinners, such as isobornyl methacrylate is suitable for the use in a radiation curable coating composition in combination with acrylic prepolymers.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-6, 8-10, 13 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elena Tsoy  
Primary Examiner  
Art Unit 1762

July 21, 2004